

New CLIK (CLIK 3.0)

CLimate I nformation tool Kit

User Manual

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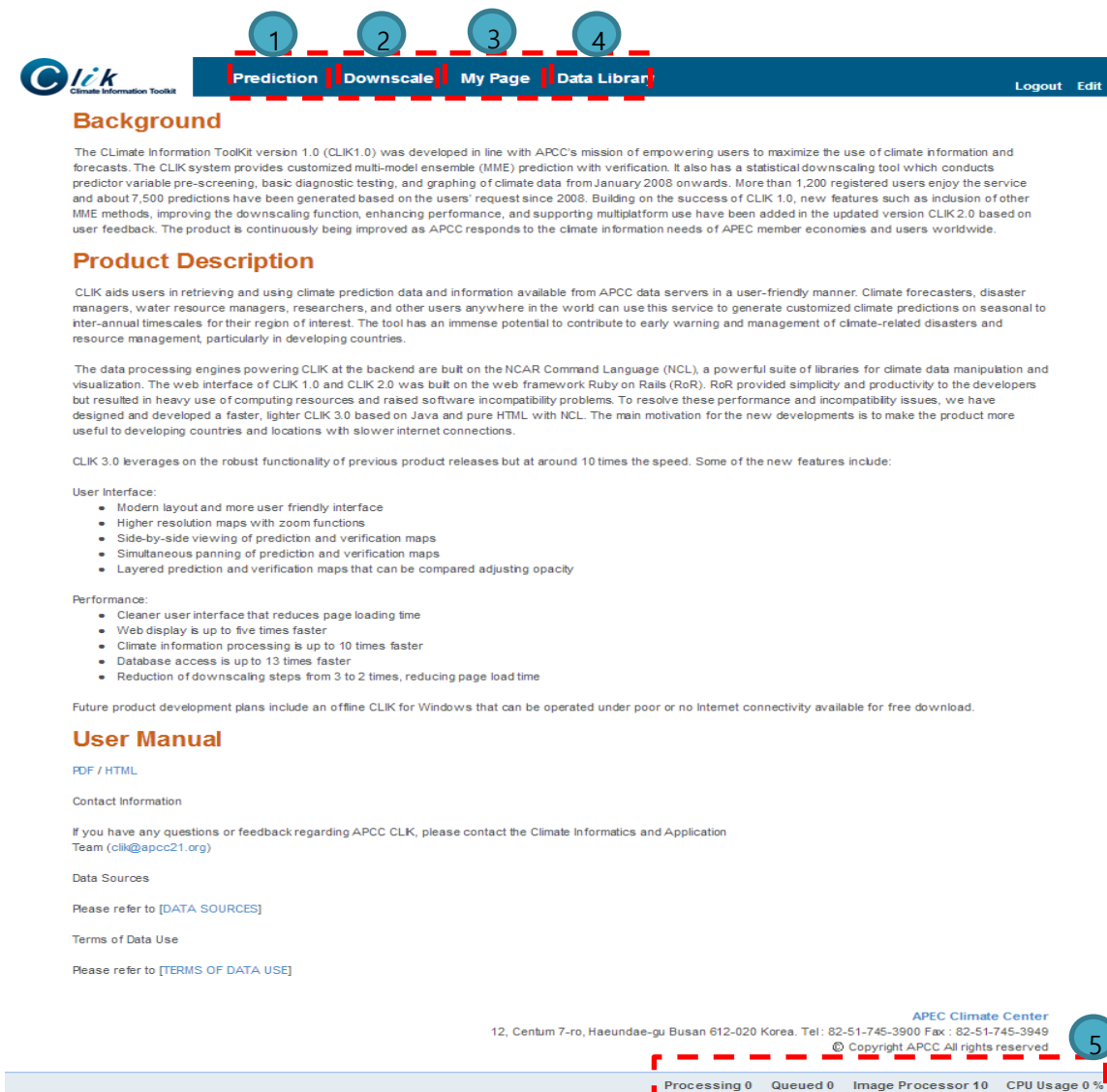
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1 Introduction Page

[Figure 1] Shows the main screen of New CLIK which provides basic information about the New CLIK.



The screenshot shows the main interface of the New CLIK system. At the top, there is a navigation bar with four main menu items: **Prediction** (1), **Downscale** (2), **My Page** (3), and **Data Library** (4). To the right of these items are **Logout** and **Edit** links. Below the navigation bar, the page is divided into sections: **Background**, **Product Description**, **User Manual**, and **Contact Information**. The **Background** section describes the CLIK system's mission and features. The **Product Description** section details the system's architecture and performance improvements. The **User Manual** section provides links to PDF and HTML versions of the manual. The **Contact Information** section provides contact details for the APCC team. At the bottom of the page, there is a status bar (5) showing system metrics: **Processing 0**, **Queued 0**, **Image Processor 10**, and **CPU Usage 0 %**. The footer of the page includes the APCC logo, copyright information, and the APEC Climate Center address.

[Figure 1] Introduction Page

1. Prediction – This menu provides MME prediction & verification
2. Downscale – This menu is required to perform statistical downscaling and provide user-manageable datasets (create, edit, and remove).
3. My Page – Used to check user job list and processing results, displays the system status of the New CLIK system with a graph.
4. Data Library – For administrators only. This menu does not appear for normal user.
5. Status Bar – Indicates the information of the New CLIK System including number of

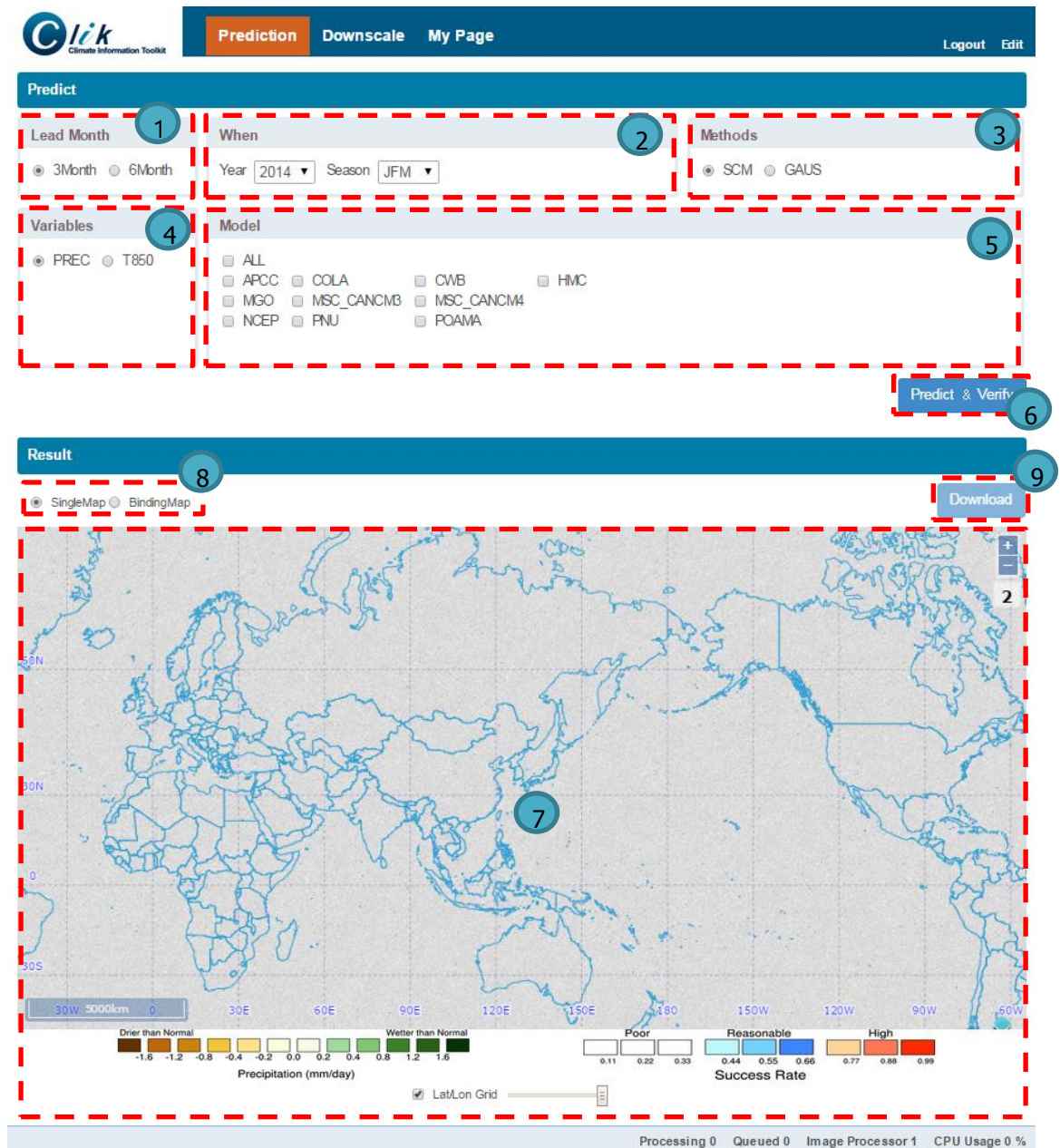
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processing jobs, number of queued jobs, the number of image processors, and CPU Usage. The information is updated every 30 seconds.

2 PREDICTION

2.1 Overview of Prediction tab

The prediction menu provides MME prediction and verification and shows the result on the built-in map.

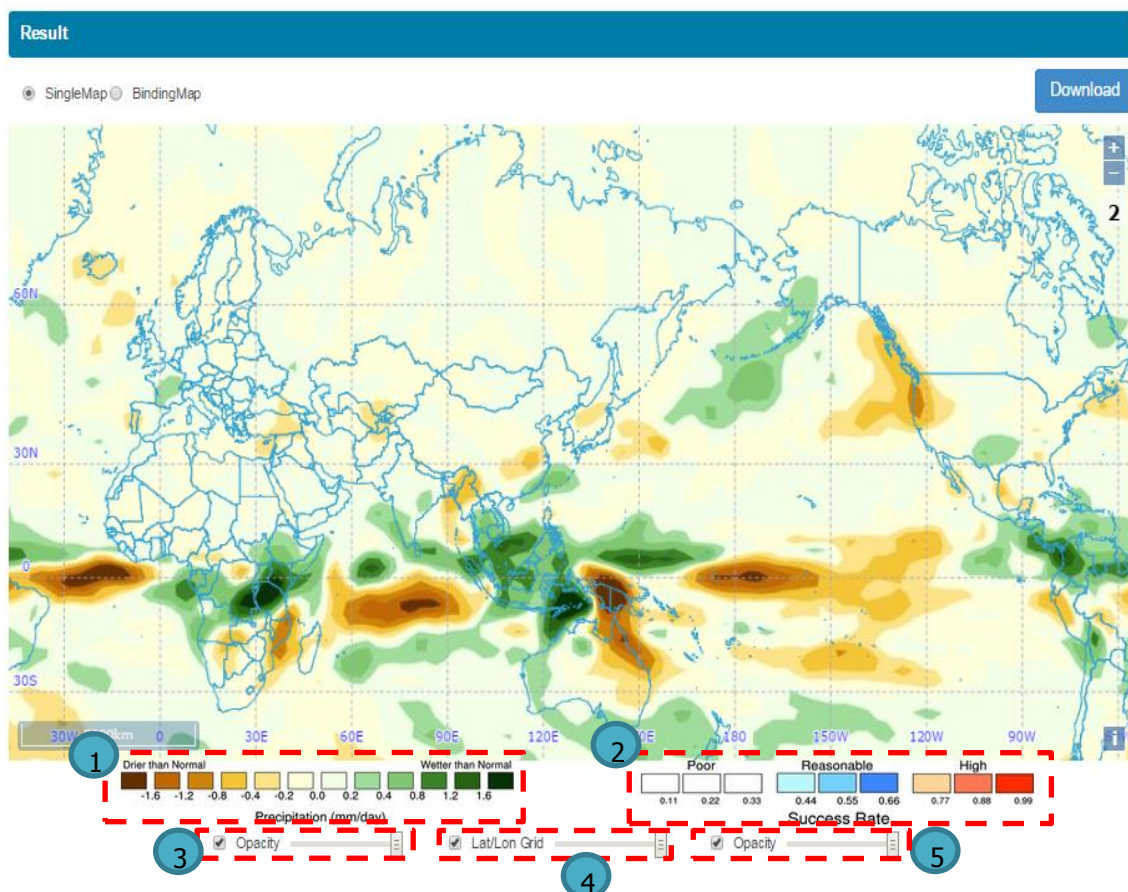


[Figure 2] Prediction

1. Lead Month – Select lead month of MME Prediction.

2. When – Select year and season. For example, you could select 2014 for the year and JFM (January-February-March) for the consecutive season.
3. Methods – Choose one of SCM (DMME using Simple Composite Method) and GAUS (PMME using GAUSSIAN approximation) for MME prediction.
4. Variables – Select one variable for MME prediction (PREC: Precipitation, T850: 850hPa Temperature).
5. Model – Select model to be used in the prediction. Available models could change due to lead month, time frame, and other variables.
6. Predict & Verify – Request “Prediction and Verification” with customized parameters due to user’s choice.
7. Map – Present the results of the “Prediction and Verification” on the map.
8. Single Map & Binging Map – These radio buttons provide the function for selecting the style of map for the results.
9. Download – This button supports downloading images, NC and ASCII file of the result.

2.2 Result Panel – Single Map



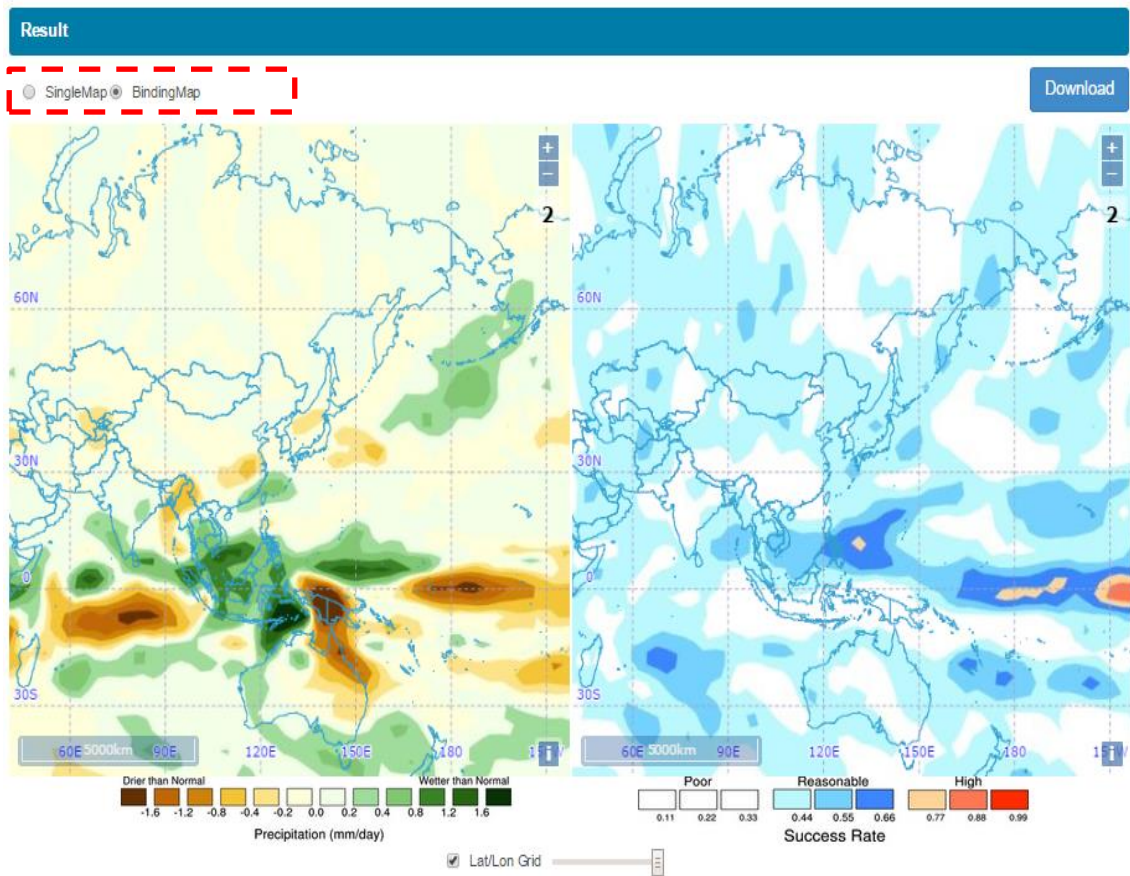
[Figure 3] Prediction results – Single Map

1. The first color bar shows the information which indicates the meaning of color for the prediction results.
2. The second color bar shows information indicating the meaning of color for the verification results.
3. The check box and vertical scroll bar control the number range from three to five, the prediction results, latitude/longitude, and the verification results display; and can be used to adjust the opacity of the prediction contour, the line, and the verification contour.

2.3 Binding Map

If a user selects a "Binding Map" from the radio buttons, the results of the prediction and verification will be shown in parallel. The prediction and verification contour with

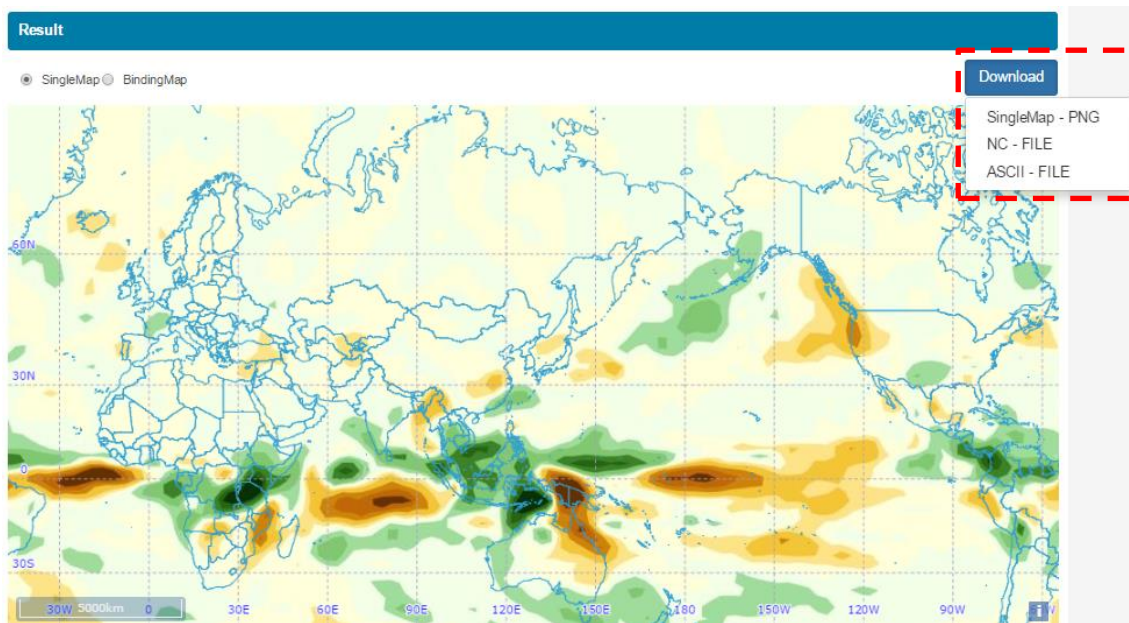
the map is tightly coupled and it shares its location information and zoom level information.



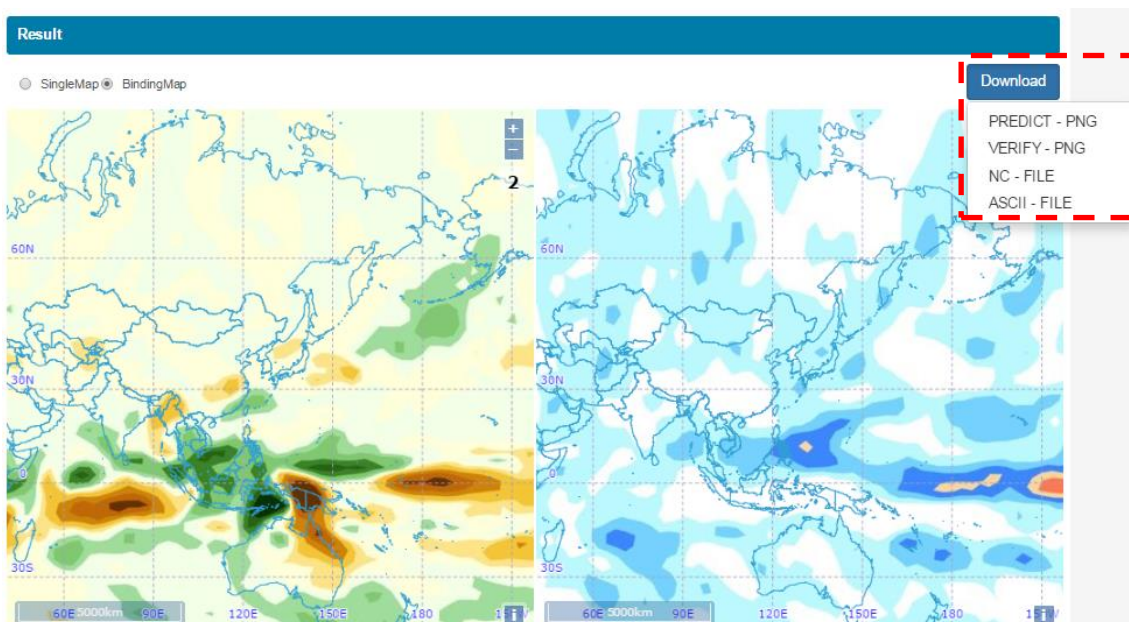
[Figure 4] Prediction result - Binding Map

2.4 Download

The image file, NC file or ASCII file of the result of Prediction and Verification could be downloaded from the "Download" Button. The type of the results could be changed due to the map type which is presented in the results section.



[Figure 5] Download – Single Map

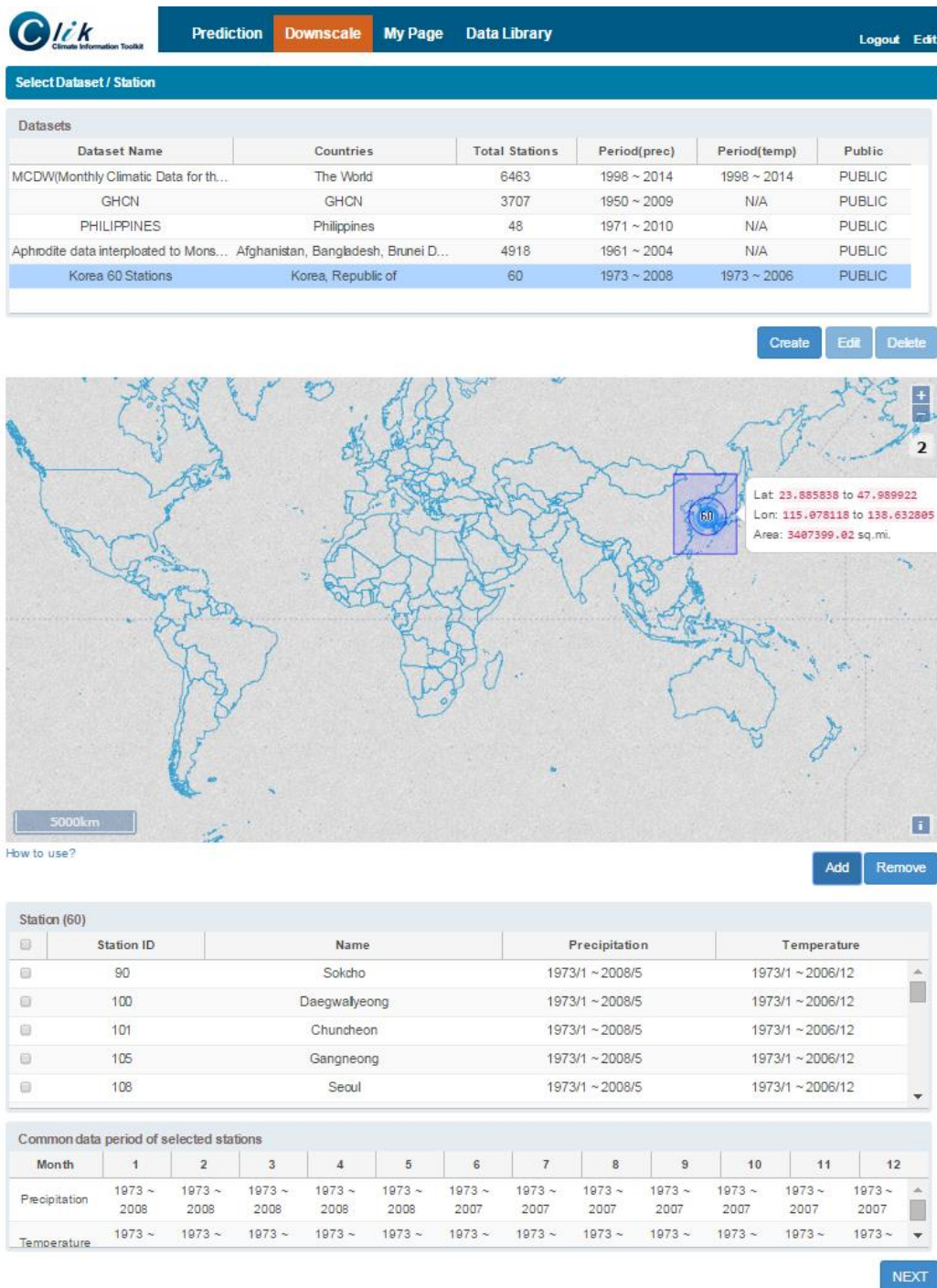


[Figure 6] Download – Binding Map

3 DOWNSCALE

3.1 Downscale

This menu displays the process of "Downscale" with the information such as Dataset, Downscale region, variable, etc.



Select Dataset / Station

Datasets

Dataset Name	Countries	Total Stations	Period(prec)	Period(temp)	Public
MCDW(Monthly Climatic Data for th...	The World	6463	1998 ~ 2014	1998 ~ 2014	PUBLIC
GHCN	GHCN	3707	1950 ~ 2009	N/A	PUBLIC
PHILIPPINES	Philippines	48	1971 ~ 2010	N/A	PUBLIC
Aphrodite data interpolated to Mons...	Afghanistan, Bangladesh, Brunei D...	4918	1961 ~ 2004	N/A	PUBLIC
Korea 60 Stations	Korea, Republic of	60	1973 ~ 2008	1973 ~ 2006	PUBLIC

Create Edit Delete

Let: 23.885838 to 47.989922
Lon: 115.078118 to 138.632805
Area: 3407399.02 sq.mi.

How to use?

Add Remove

Station (60)

Station ID	Name	Precipitation	Temperature
90	Sokcho	1973/1 ~ 2008/5	1973/1 ~ 2006/12
100	Daegwallyeong	1973/1 ~ 2008/5	1973/1 ~ 2006/12
101	Chuncheon	1973/1 ~ 2008/5	1973/1 ~ 2006/12
105	Gangneong	1973/1 ~ 2008/5	1973/1 ~ 2006/12
108	Seoul	1973/1 ~ 2008/5	1973/1 ~ 2006/12

Common data period of selected stations

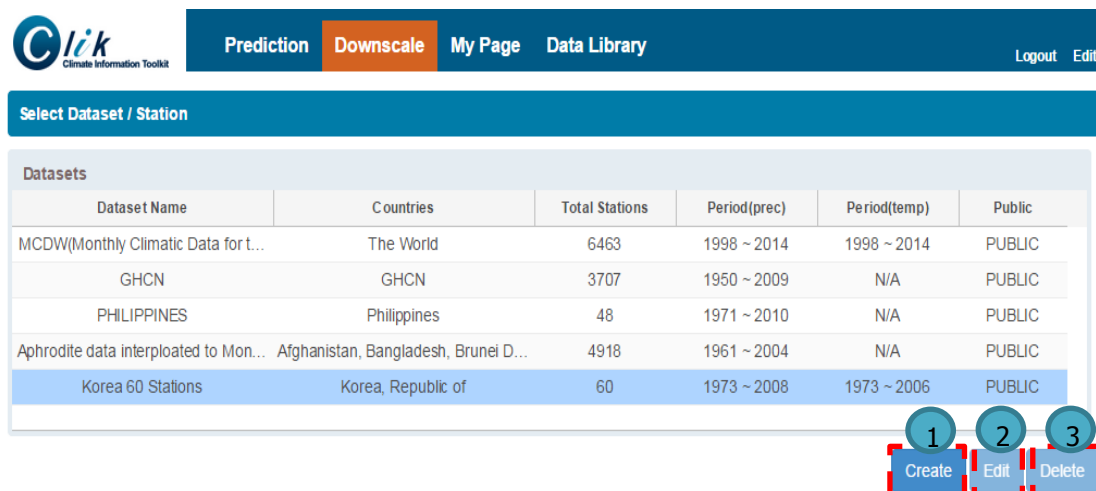
Month	1	2	3	4	5	6	7	8	9	10	11	12
Precipitation	1973 ~ 2008	1973 ~ 2008	1973 ~ 2008	1973 ~ 2008	1973 ~ 2008	1973 ~ 2007	1973 ~ 2007	1973 ~ 2007	1973 ~ 2007	1973 ~ 2007	1973 ~ 2007	1973 ~ 2007
Temperature	1973 ~ 2008	1973 ~ 2008	1973 ~ 2008	1973 ~ 2008	1973 ~ 2008	1973 ~ 2007	1973 ~ 2007	1973 ~ 2007	1973 ~ 2007	1973 ~ 2007	1973 ~ 2007	1973 ~ 2007

NEXT

[Figure 7] Downscale Step1

3.2 Dataset Management

The user can create, modify, and delete additional datasets other than the datasets provided by New CLIK.



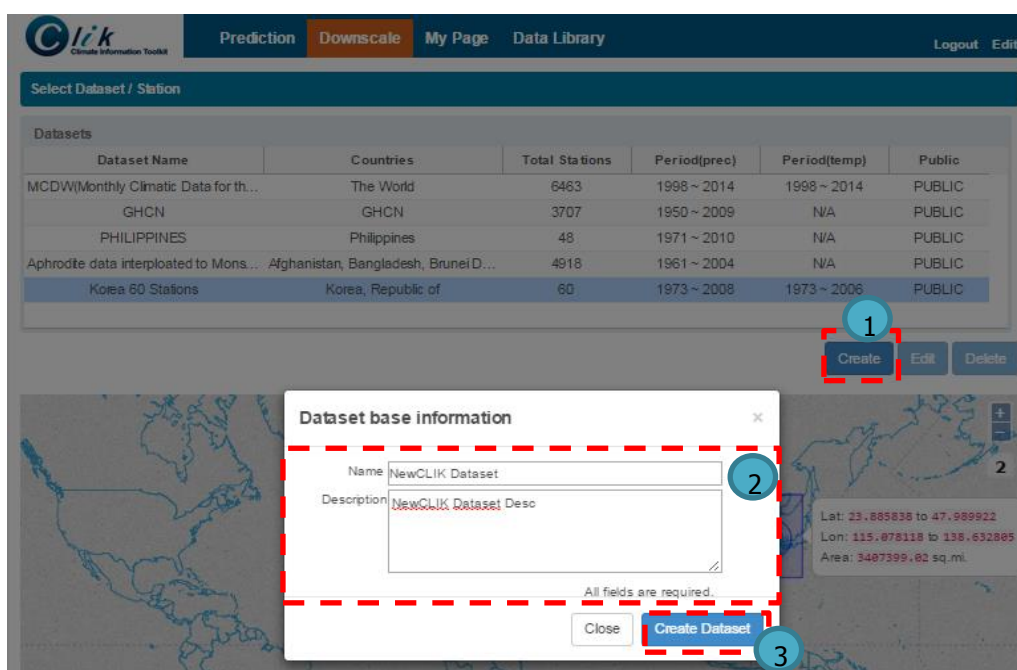
The screenshot shows the CLIK Data Library interface. At the top, there are navigation tabs: Prediction, Downscale, My Page, and Data Library. The Data Library tab is selected. Below the navigation bar, there is a section titled "Select Dataset / Station". Under this section, there is a table of datasets. The table has columns: Dataset Name, Countries, Total Stations, Period(prec), Period(temp), and Public. The datasets listed are: MCDW(Monthly Climatic Data for t..., GHCN, PHILIPPINES, Aphrodite data interpolated to Mon..., and Korea 60 Stations. The Korea 60 Stations dataset is highlighted. Below the table, there are three buttons: Create, Edit, and Delete, each with a numbered callout (1, 2, and 3 respectively).

Dataset Name	Countries	Total Stations	Period(prec)	Period(temp)	Public
MCDW(Monthly Climatic Data for t...	The World	6463	1998 ~ 2014	1998 ~ 2014	PUBLIC
GHCN	GHCN	3707	1950 ~ 2009	N/A	PUBLIC
PHILIPPINES	Philippines	48	1971 ~ 2010	N/A	PUBLIC
Aphrodite data interpolated to Mon...	Afghanistan, Bangladesh, Brunei D...	4918	1961 ~ 2004	N/A	PUBLIC
Korea 60 Stations	Korea, Republic of	60	1973 ~ 2008	1973 ~ 2006	PUBLIC

[Figure 8] Dataset management

1. Create – Create a window for adding a new dataset.
2. Edit – Provide “modify” function for the user’s dataset.
3. Delete – Provide “delete” function for the user’s dataset.

3.2.1 Dataset Create

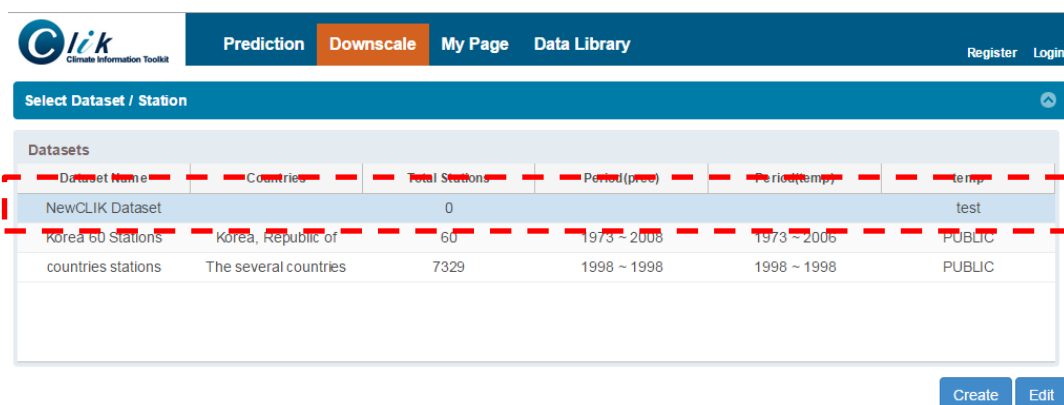


The screenshot shows the CLIK Data Library interface with the Dataset Create dialog box open. The dialog box has fields for Name and Description. The Name field is filled with "NewCLIK Dataset" and the Description field is filled with "NewCLIK Dataset Desc". There are buttons for Close and Create Dataset. The Create Dataset button is highlighted with a red dashed box and a numbered callout (3). The background shows the same dataset table as in Figure 8, with the Korea 60 Stations dataset highlighted.

[Figure 9] Dataset Create

Following steps show "Dataset Create" process.

1. Create a new Dataset window for Downscale by clicking the "Create" button.
2. The user enters the name and description of the dataset while in the process creating it.
3. After clicking the "Create Dataset" button, the Dataset is created.
4. The user then can confirm additional dataset.

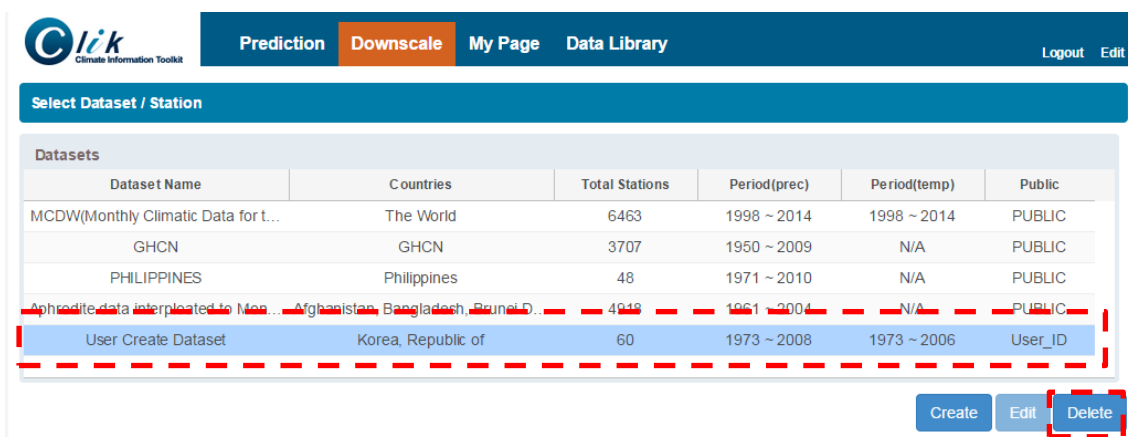


Dataset Name	Countries	Total Stations	Period(prec)	Period(temp)	temp
NewCLIK Dataset		0			test
Korea 60 Stations	Korea, Republic of	60	1973 ~ 2008	1973 ~ 2006	PUBLIC
countries stations	The several countries	7329	1998 ~ 1998	1998 ~ 1998	PUBLIC

[Figure 10] Dataset Create - Complete

3.2.2 Dataset Delete

The "Delete" button provides the delete function for each dataset. The user selects specific datasets, then clicks the "Delete" button.

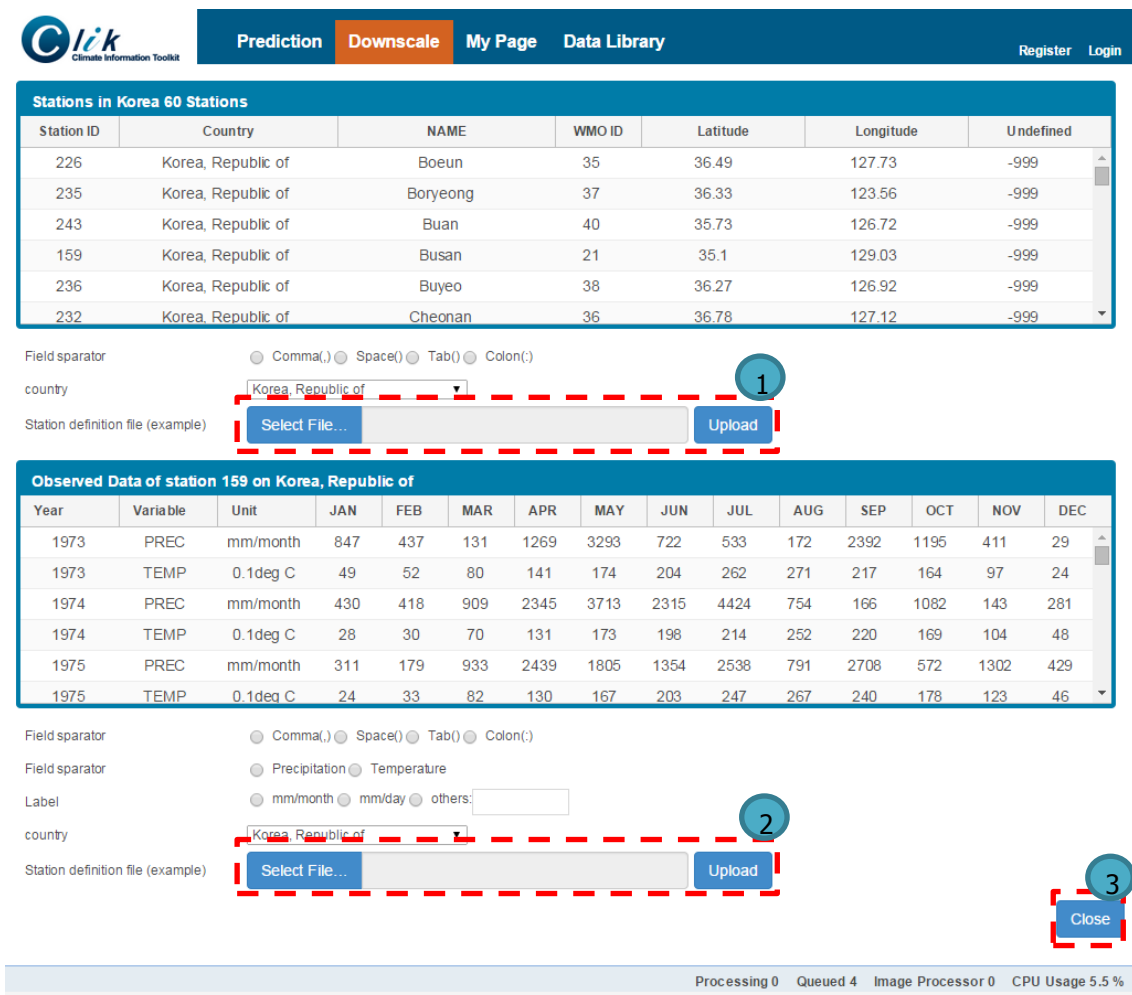


Dataset Name	Countries	Total Stations	Period(prec)	Period(temp)	Public
MCDW(Monthly Climatic Data for t...	The World	6463	1998 ~ 2014	1998 ~ 2014	PUBLIC
GHCN	GHCN	3707	1950 ~ 2009	N/A	PUBLIC
PHILIPPINES	Philippines	48	1971 ~ 2010	N/A	PUBLIC
Aphedite data interpolated to Mon...	Afghanistan, Bangladesh, Brunei D...	4948	1961 ~ 2004	N/A	PUBLIC
User Create Dataset	Korea, Republic of	60	1973 ~ 2008	1973 ~ 2006	User_ID

[Figure 11] Dataset Delete

3.2.3 Dataset Edit

The top panel displays the information of each station. While the bottom panel displays the observed data of each station. The usage of the management of the information is following.



The interface is divided into two main sections: 'Stations in Korea 60 Stations' and 'Observed Data of station 159 on Korea, Republic of'.

Stations in Korea 60 Stations

Station ID	Country	NAME	WMO ID	Latitude	Longitude	Undefined
226	Korea, Republic of	Boeun	35	36.49	127.73	-999
235	Korea, Republic of	Boryeong	37	36.33	123.56	-999
243	Korea, Republic of	Buan	40	35.73	126.72	-999
159	Korea, Republic of	Busan	21	35.1	129.03	-999
236	Korea, Republic of	Buyeo	38	36.27	126.92	-999
232	Korea, Republic of	Cheonan	36	36.78	127.12	-999

Field separator: ☐ Comma(,) ☐ Space() ☐ Tab() ☐ Colon(:)

country:

Station definition file (example):

Observed Data of station 159 on Korea, Republic of

Year	Variable	Unit	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1973	PREC	mm/month	847	437	131	1269	3293	722	533	172	2392	1195	411	29
1973	TEMP	0.1deg C	49	52	80	141	174	204	262	271	217	164	97	24
1974	PREC	mm/month	430	418	909	2345	3713	2315	4424	754	166	1082	143	281
1974	TEMP	0.1deg C	28	30	70	131	173	198	214	252	220	169	104	48
1975	PREC	mm/month	311	179	933	2439	1805	1354	2538	791	2708	572	1302	429
1975	TEMP	0.1deg C	24	33	82	130	167	203	247	267	240	178	123	46

Field separator: ☐ Comma(,) ☐ Space() ☐ Tab() ☐ Colon(:)

Field separator: ☐ Precipitation ☐ Temperature

Label: ☐ mm/month ☐ mm/day ☐ others:

country:

Station definition file (example):

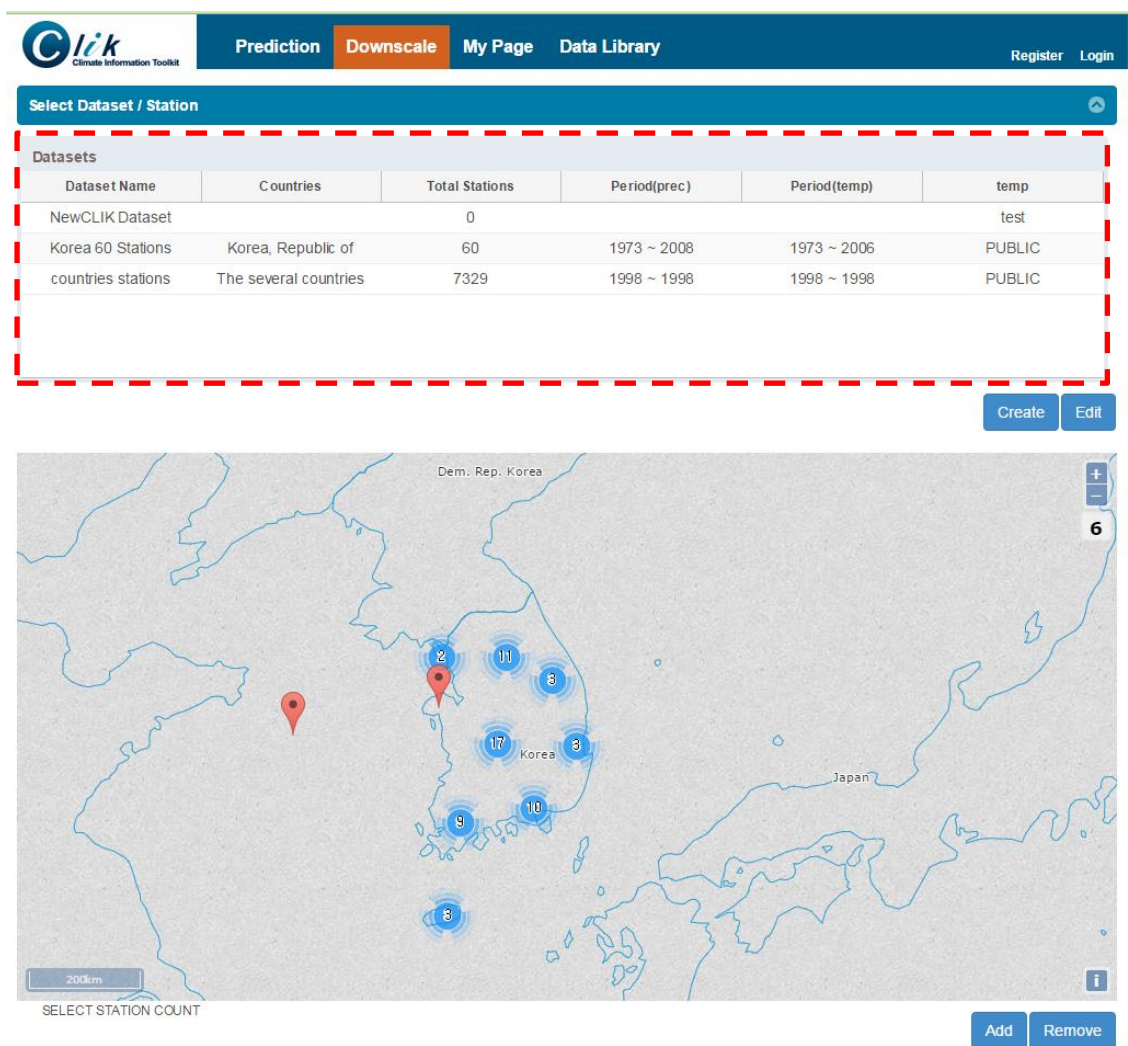
Processing 0 Queued 4 Image Processor 0 CPU Usage 5.5 %

[Figure 12] Dataset Edit

1. Provide uploading Station Data.
2. Provide uploading Observed Data for each station.
3. Close "Edit" screen.
 - The format of the Station Data is as the following.
name , station_id , wmo_id , latitude , longitude , undefined , public
Rusoki Mar , 200 , 1999200 , -20.5 , 150.182 , -999.0 , True
 - The format of the Observed Data of each station as following.
station_id , year , jan , feb , mar , apr , may , jun , jul , aug , sep , oct , nov , dec
200 , 1999 , 51.2 , 52.2 , 52.2 , 52.7 , 52.3 , 52.6 , 53.2 , 56.2 , 55.2 , 54.2 , 51.2 , 50.2

3.3 Select Dataset / Station

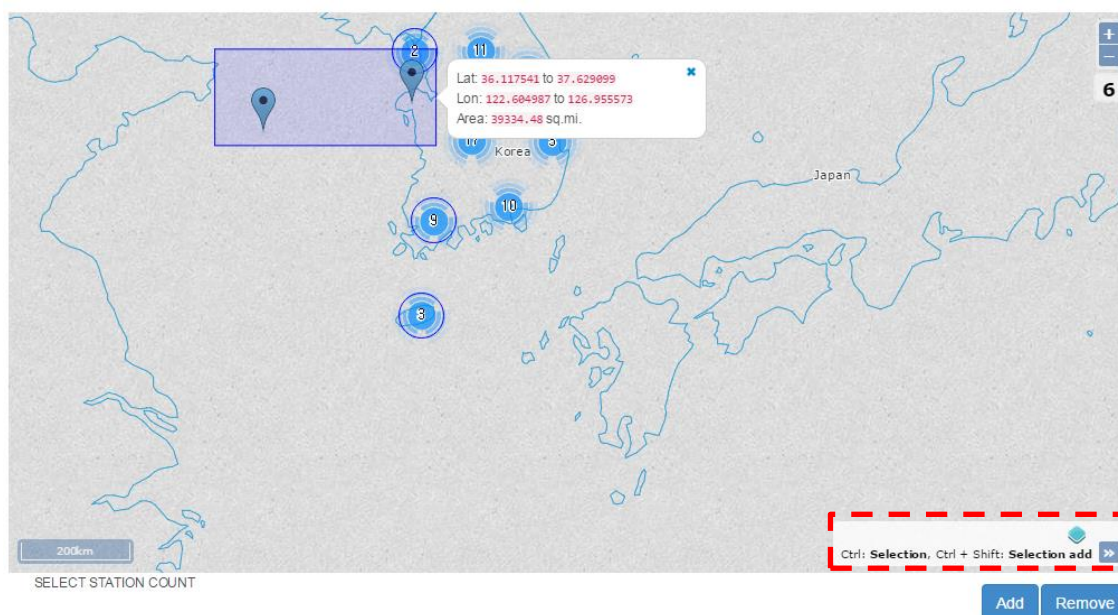
When the user selects one dataset from "Select Dataset / Station" grid, the stations will be shown in the map.



[Figure 13] Select Dataset / Station

3.4 Select Stations to Add

The user can select stations using mouse "Clicking and Drag" with keyboard "Shift" key, then click the "Add" button. With "Shift + Ctrl" key combination, an additional station would be added into the current set of selected stations.



[Figure 14] Select Station using Mouse

If the user clicks the “Add” button, the “Station information” and “Common data period of selected stations” are presented in the grid.

SELECT STATION COUNT 16

Add Remove

Station	Station ID	Name	Precipitation	Temperature
☐	201	Ganghwa	1973/1 ~ 2008/5	1973/1 ~ 2006/12
☐	235	Boryeong	1973/1 ~ 2008/5	1973/1 ~ 2006/12
☐	245	Jeongeup	1973/1 ~ 2008/5	1973/1 ~ 2006/12
☐	247	Namwon	1973/1 ~ 2008/5	1973/1 ~ 2006/12
☐	256	Suncheon	1973/1 ~ 2008/5	1973/1 ~ 2006/12

Common data period of selected stations												
Month	1	2	3	4	5	6	7	8	9	10	11	12
Precipitation	1973-2008	1973-2008	1973-2008	1973-2008	1973-2008	1973-2007	1973-2007	1973-2007	1973-2007	1973-2007	1973-2007	1973-2007
Temperature	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006

NEXT

[Figure 15] Selected Station Add

3.5 Selected Station Remove

"Remove" button provides particular stations deletion from selected stations. The user selects "check box" and clicks the button, then the selected station has been rearranged.

SELECT STATION COUNT 16

Station	Station ID	Name	Precipitation	Temperature
☐	201	Ganghwa	1973/1 ~ 2008/5	1973/1 ~ 2006/12
☒	235	Boryeong	1973/1 ~ 2008/5	1973/1 ~ 2006/12
☐	245	Jeongeup	1973/1 ~ 2008/5	1973/1 ~ 2006/12
☒	247	Namwon	1973/1 ~ 2008/5	1973/1 ~ 2006/12
☒	256	Suncheon	1973/1 ~ 2008/5	1973/1 ~ 2006/12

Common data period of selected stations												
Month	1	2	3	4	5	6	7	8	9	10	11	12
Precipitation	1973-2008	1973-2008	1973-2008	1973-2008	1973-2008	1973-2007	1973-2007	1973-2007	1973-2007	1973-2007	1973-2007	1973-2007
Temperature	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006

[Figure 16] Selected Station Remove

3.6 NEXT

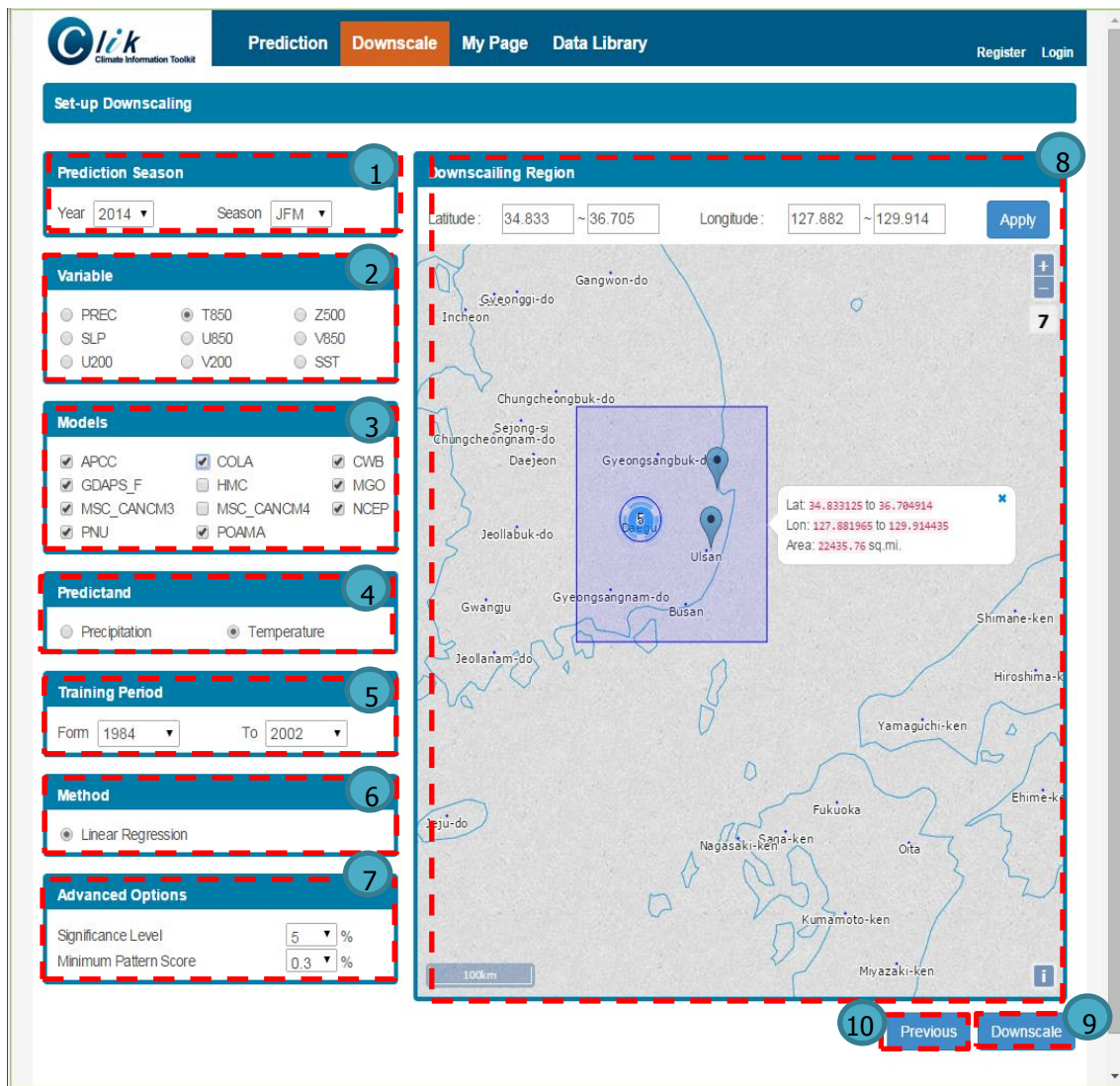
After finishing the stations for downscaling, the user has to click the "NEXT" button to proceed to Step 2.

Common data period of selected stations												
Month	1	2	3	4	5	6	7	8	9	10	11	12
Precipitation	1973-2008	1973-2008	1973-2008	1973-2008	1973-2008	1973-2007	1973-2007	1973-2007	1973-2007	1973-2007	1973-2007	1973-2007
Temperature	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006	1973-2006

[Figure 17] Downscale NEXT

3.7 Downscale Step 2

The user chooses required information for the downscale and sends it to the server.



[Figure 18] Downscale Step 2

1. Prediction Season – Select the year and season of the user's interest.
2. Variable – Choose the variable for the downscale.
3. Models – Select the models which depend on user's selection steps 1 and 2. Multiple selections are available.
4. Predictand – Choose the predictand between "Precipitation" and "Temperature".
5. Training Period – CLIK shows the common period of the selected data set. The user could choose the maximum period or another period they are interested in.
6. Method – Choose method. Currently, linear regression method is provided. CLIK would

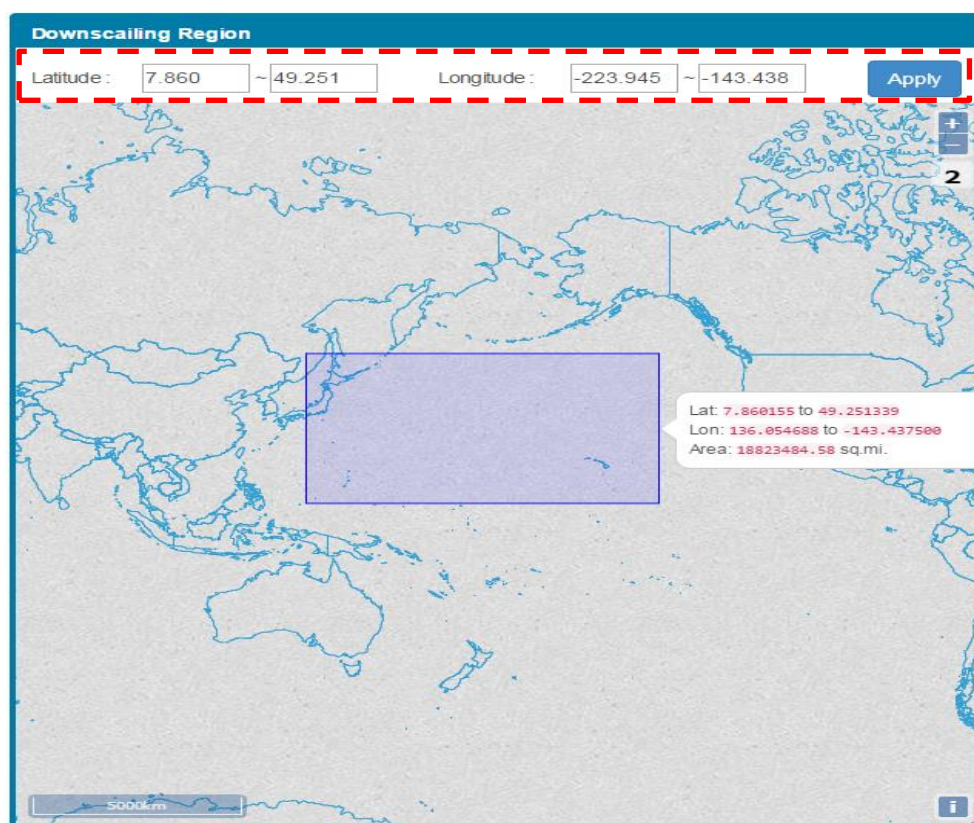
be expanding the methods in near future

7. Advanced Options – The user make selections on the Significance Level and Minimum Pattern Score Value for the downscaling screening process. If some of stations fail to pass this condition, CLIK won't calculate the downscaling forecast of the failed station.
8. Downscaling Region – The user can drag the region the map or type the lat/lon value of the downscaling region.
9. Downscale – By clicking the "Downscale", the downscaling job will be queued to CLIK system.
10. Previous – Move Downscale Step 1.

3.8 Set Downscaling Region

There are two methods to set the downscaling region:

1. Mouse dragging with the Shift key on the map.
2. Keyboard typing on the latitude/longitude text box.



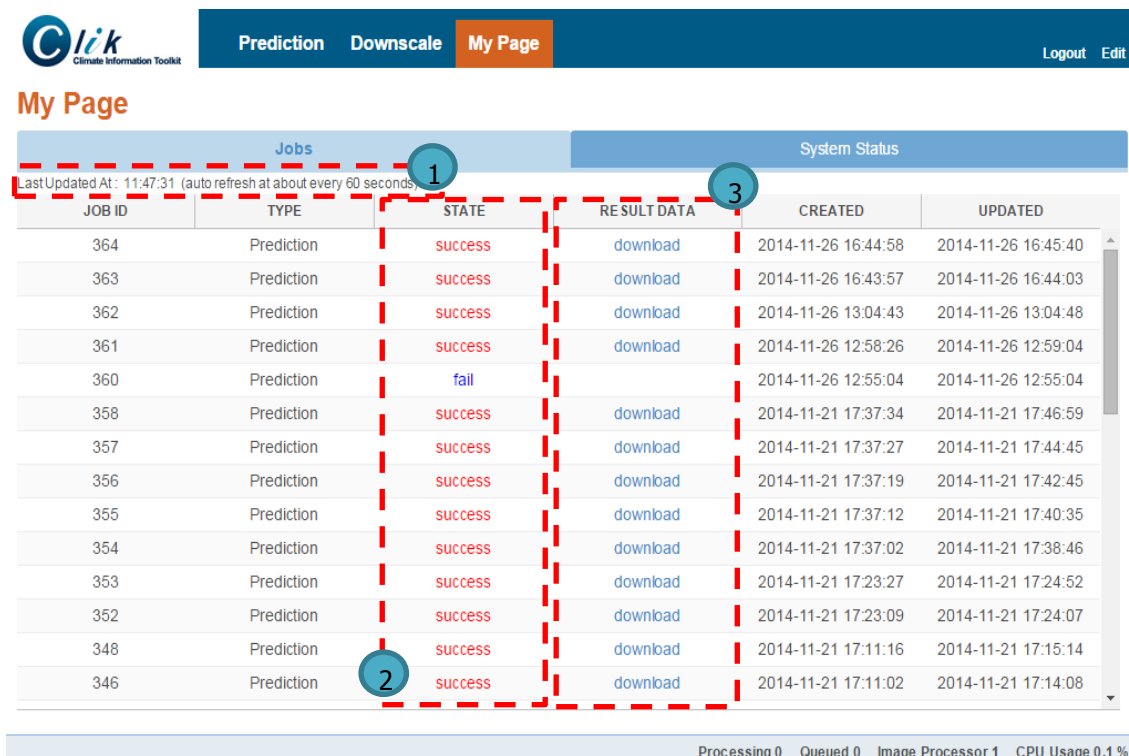
[Figure 19] Downscaling Region

4 My Page

"Jobs" and "System Status" tabs exist to support checking the job list of the user and CLIK system status.

4.1 Jobs

You can check the status and results of the job requested by the user.



My Page

Prediction Downscale **My Page** Logout Edit

Jobs System Status

Last Updated At: 11:47:31 (auto refresh at about every 60 seconds)

JOB ID	TYPE	STATE	RESULT DATA	CREATED	UPDATED
364	Prediction	success	download	2014-11-26 16:44:58	2014-11-26 16:45:40
363	Prediction	success	download	2014-11-26 16:43:57	2014-11-26 16:44:03
362	Prediction	success	download	2014-11-26 13:04:43	2014-11-26 13:04:48
361	Prediction	success	download	2014-11-26 12:58:26	2014-11-26 12:59:04
360	Prediction	fail		2014-11-26 12:55:04	2014-11-26 12:55:04
358	Prediction	success	download	2014-11-21 17:37:34	2014-11-21 17:46:59
357	Prediction	success	download	2014-11-21 17:37:27	2014-11-21 17:44:45
356	Prediction	success	download	2014-11-21 17:37:19	2014-11-21 17:42:45
355	Prediction	success	download	2014-11-21 17:37:12	2014-11-21 17:40:35
354	Prediction	success	download	2014-11-21 17:37:02	2014-11-21 17:38:46
353	Prediction	success	download	2014-11-21 17:23:27	2014-11-21 17:24:52
352	Prediction	success	download	2014-11-21 17:23:09	2014-11-21 17:24:07
348	Prediction	success	download	2014-11-21 17:11:16	2014-11-21 17:15:14
346	Prediction	success	download	2014-11-21 17:11:02	2014-11-21 17:14:08

Processing 0 Queued 0 Image Processor 1 CPU Usage 0.1 %

[Figure 20] My Page – Jobs

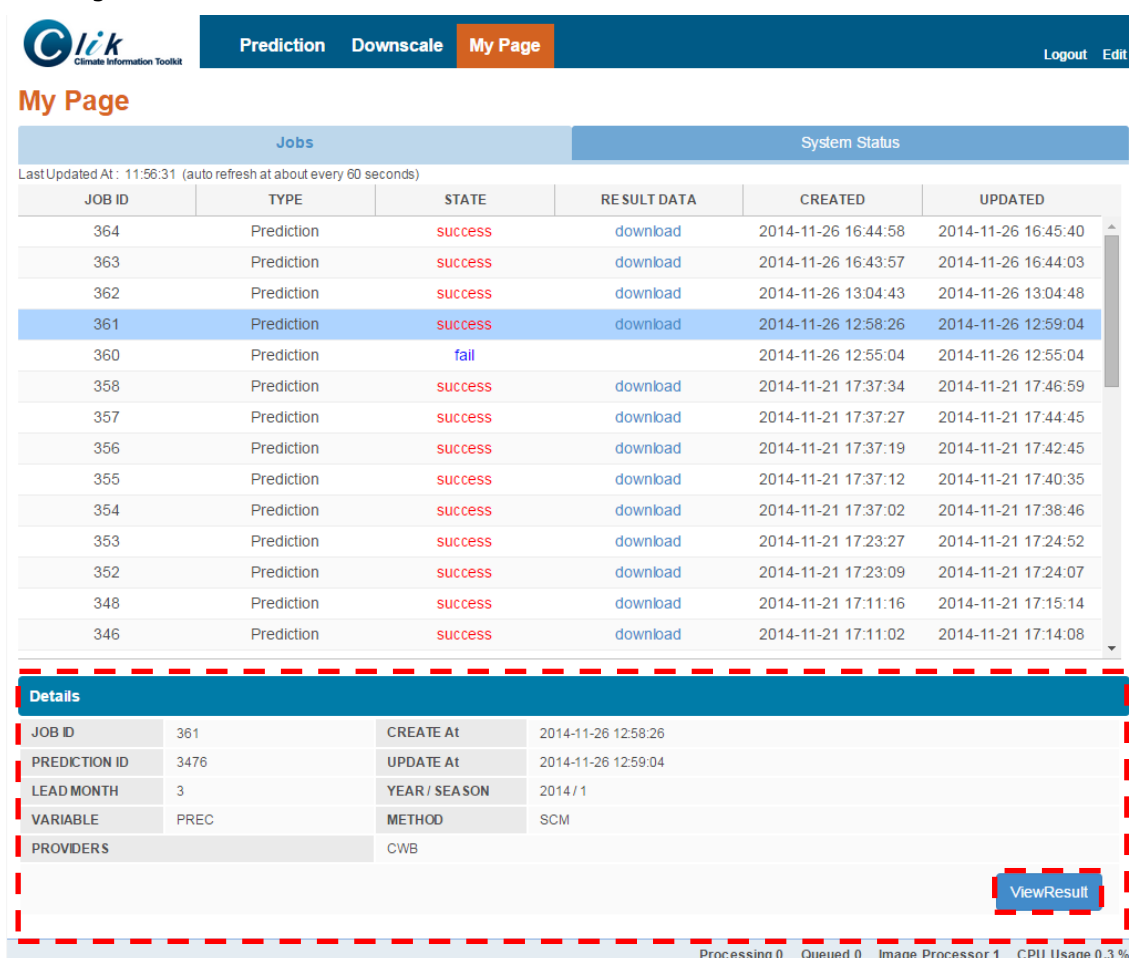
1. The grid for the jobs is automatically updated every 60 seconds, and shows the first created and the last updated time.
2. It shows the current status of the job. There are four states (queued, processing, fail, and success).
3. When the user's requested job is successfully completed, the results can be downloaded.

4.2 Details

When the user clicks on the entry of a job, detailed information will be shown.

4.2.1 Prediction Detail

If the user selects the entry of the prediction job which holds a "Success" state, the "View Result" button will be displaying to the user. The prediction results can be shown by clicking this button.



The screenshot shows the 'My Page' interface of the APCC Climate Information Toolkit. It features a navigation bar with 'Prediction', 'Downscale', and 'My Page' tabs. Below the navigation bar, there is a table of prediction jobs. The table has columns for JOB ID, TYPE, STATE, RESULT DATA, CREATED, and UPDATED. Job 361 is highlighted in blue. Below the table, there is a 'Details' section for job 361, which includes fields for JOB ID, PREDICTION ID, LEAD MONTH, VARIABLE, PROVIDERS, CREATE At, UPDATE At, YEAR / SEASON, METHOD, and CPU Usage. A 'ViewResult' button is visible in the bottom right corner of the details section.

JOB ID	TYPE	STATE	RESULT DATA	CREATED	UPDATED
364	Prediction	success	download	2014-11-26 16:44:58	2014-11-26 16:45:40
363	Prediction	success	download	2014-11-26 16:43:57	2014-11-26 16:44:03
362	Prediction	success	download	2014-11-26 13:04:43	2014-11-26 13:04:48
361	Prediction	success	download	2014-11-26 12:58:26	2014-11-26 12:59:04
360	Prediction	fail		2014-11-26 12:55:04	2014-11-26 12:55:04
358	Prediction	success	download	2014-11-21 17:37:34	2014-11-21 17:46:59
357	Prediction	success	download	2014-11-21 17:37:27	2014-11-21 17:44:45
356	Prediction	success	download	2014-11-21 17:37:19	2014-11-21 17:42:45
355	Prediction	success	download	2014-11-21 17:37:12	2014-11-21 17:40:35
354	Prediction	success	download	2014-11-21 17:37:02	2014-11-21 17:38:46
353	Prediction	success	download	2014-11-21 17:23:27	2014-11-21 17:24:52
352	Prediction	success	download	2014-11-21 17:23:09	2014-11-21 17:24:07
348	Prediction	success	download	2014-11-21 17:11:16	2014-11-21 17:15:14
346	Prediction	success	download	2014-11-21 17:11:02	2014-11-21 17:14:08

Details			
JOB ID	361	CREATE At	2014-11-26 12:58:26
PREDICTION ID	3476	UPDATE At	2014-11-26 12:59:04
LEAD MONTH	3	YEAR / SEASON	2014 / 1
VARIABLE	PREC	METHOD	SCM
PROVIDERS	CWB		

Processing 0 Queued 0 Image Processor 1 CPU Usage 0.3 %

[Figure 21] Prediction Detail

4.2.2 Downscale Detail

If the user selects the entry of the downscale job which holds a "Success" state, the "View Result" button will be displayed to the user. If the job entry has a "Fail" state, the "Edit" button for resubmitting downscale job with changing parameters will be displayed to start furthering editing.

My Page

Jobs

System Status

Last Updated At: 13:23:32 (auto refresh at about every 60 seconds)

JOB ID	TYPE	STATE	RESULT DATA	CREATED	UPDATED
327	Prediction	success	download	2014-11-21 16:48:20	2014-11-21 16:49:31
326	Prediction	success	download	2014-11-21 16:46:39	2014-11-21 16:47:49
325	Prediction	success	download	2014-11-21 16:14:46	2014-11-21 16:15:50
324	Prediction	success	download	2014-11-21 16:10:44	2014-11-21 16:11:40
323	Prediction	success	download	2014-11-21 16:09:39	2014-11-21 16:10:50
322	Downscale	success	download	2014-11-21 13:43:17	2014-11-21 13:44:29
319	Downscale	success	download	2014-11-13 15:29:19	2014-11-13 15:30:19
318	Downscale	success	download	2014-11-12 18:34:40	2014-11-12 18:35:38
317	Downscale	success	download	2014-11-12 18:29:33	2014-11-12 18:30:50
316	Downscale	success	download	2014-11-12 17:02:18	2014-11-12 17:03:21
315	Downscale	fail		2014-11-12 16:59:34	2014-11-12 16:59:35
314	Downscale	success	download	2014-11-12 16:52:02	2014-11-12 16:53:31
313	Downscale	fail		2014-11-12 16:51:23	2014-11-12 16:51:30
312	Downscale	success	download	2014-11-12 16:34:38	2014-11-12 16:41:22
311	Downscale	fail		2014-11-12 16:05:49	2014-11-12 16:05:53

Details			
JOB ID	312	CREATE At	2014-11-12 16:34:38
DOWNSCALE ID	116	UPDATE At	2014-11-12 16:41:22
PREDICTAND	PREDICTOR		
YEAR/SEASON	2013 / 2	Training Period	1983 / 2002
PREDICTAND	PREC	VARIABLE	PREC
DATASET	Korea 60 Stations [ID:2]	MODELS	BCC, COLA, CWB, GDAPS_F, POAMA
STATION	60 Stations	REGION	Lat 32~40/ Lon 123~131
SIGNIFICANCE LEVEL	5%		
MINIMUM PATTERN SCORE	0.3		
FEEDBACK			

ViewResult Edit

[Figure 22] Downscale Detail - Success

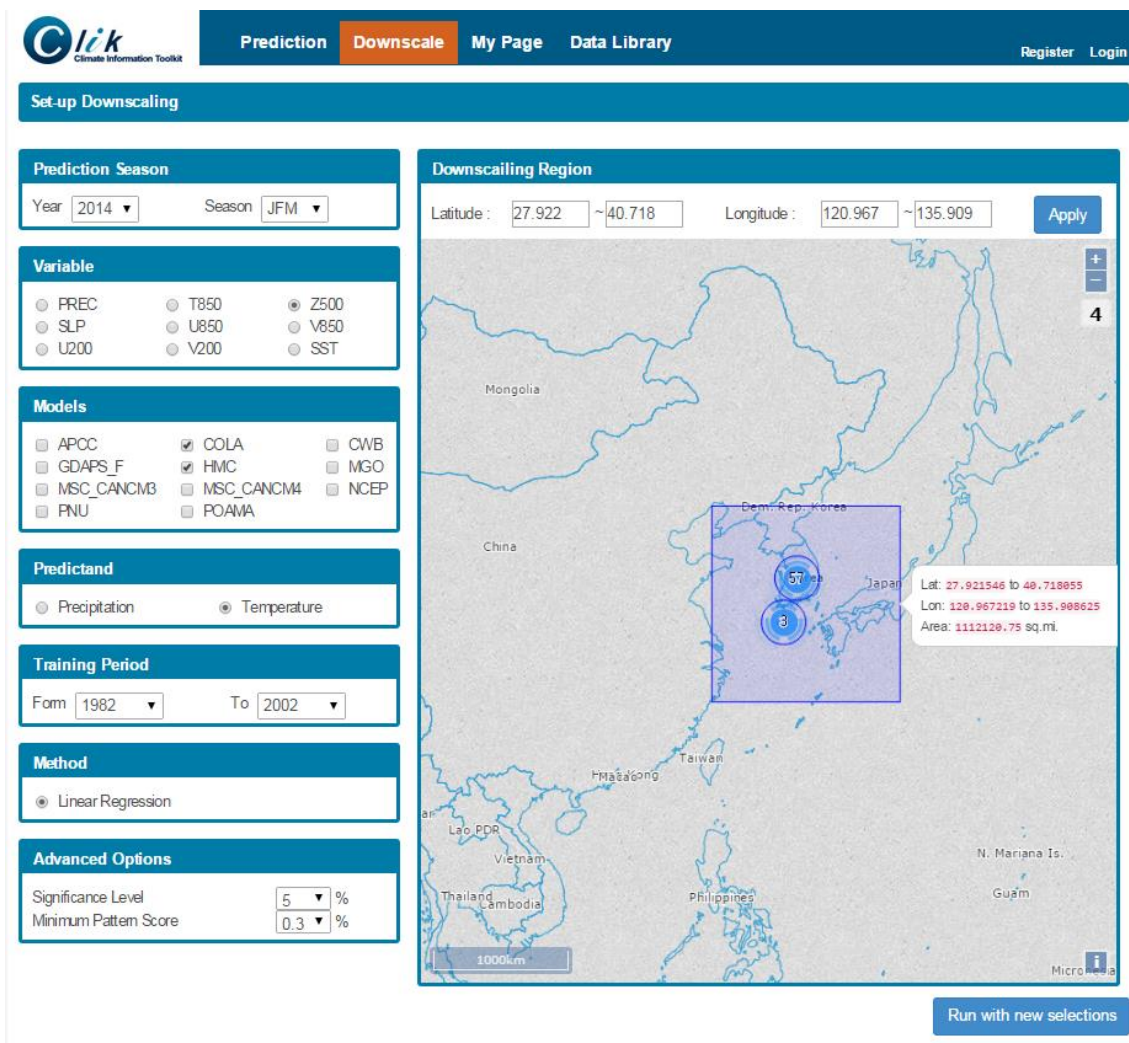
Details			
JOB ID	315	CREATE At	2014-11-12 16:59:34
DOWNSCALE ID	119	UPDATE At	2014-11-12 16:59:35
PREDICTAND	PREDICTOR		
YEAR/SEASON	2013 / 2	Training Period	1998 / 2002
PREDICTAND	PREC	VARIABLE	PREC
DATASET	MCDW(Monthly Climatic Data for the World) from NOAA [ID:7604]	MODELS	BCC, COLA, CWB, GDAPS_F
STATION	4 Stations	REGION	Lat 32~40/ Lon 123~131
SIGNIFICANCE LEVEL	5%		
MINIMUM PATTERN SCORE	0.3		
FEEDBACK	Start downscaling process... units = mm/month data = 33.0 shellCmd start....		

Edit

[Figure 23] Downscale Detail - Fail

4.3 Downscale Edit

When the "Edit" button is clicked, CLIK moves the screen into Downscale Step 2. If you want to change stations, a new downscale job should be submitted at the first step of downscale process.



The screenshot shows the CLIK (Climate Information Toolkit) interface for the "Downscale" step. The top navigation bar includes "Prediction", "Downscale" (active), "My Page", and "Data Library". The "Set-up Downscaling" section contains several configuration panels:

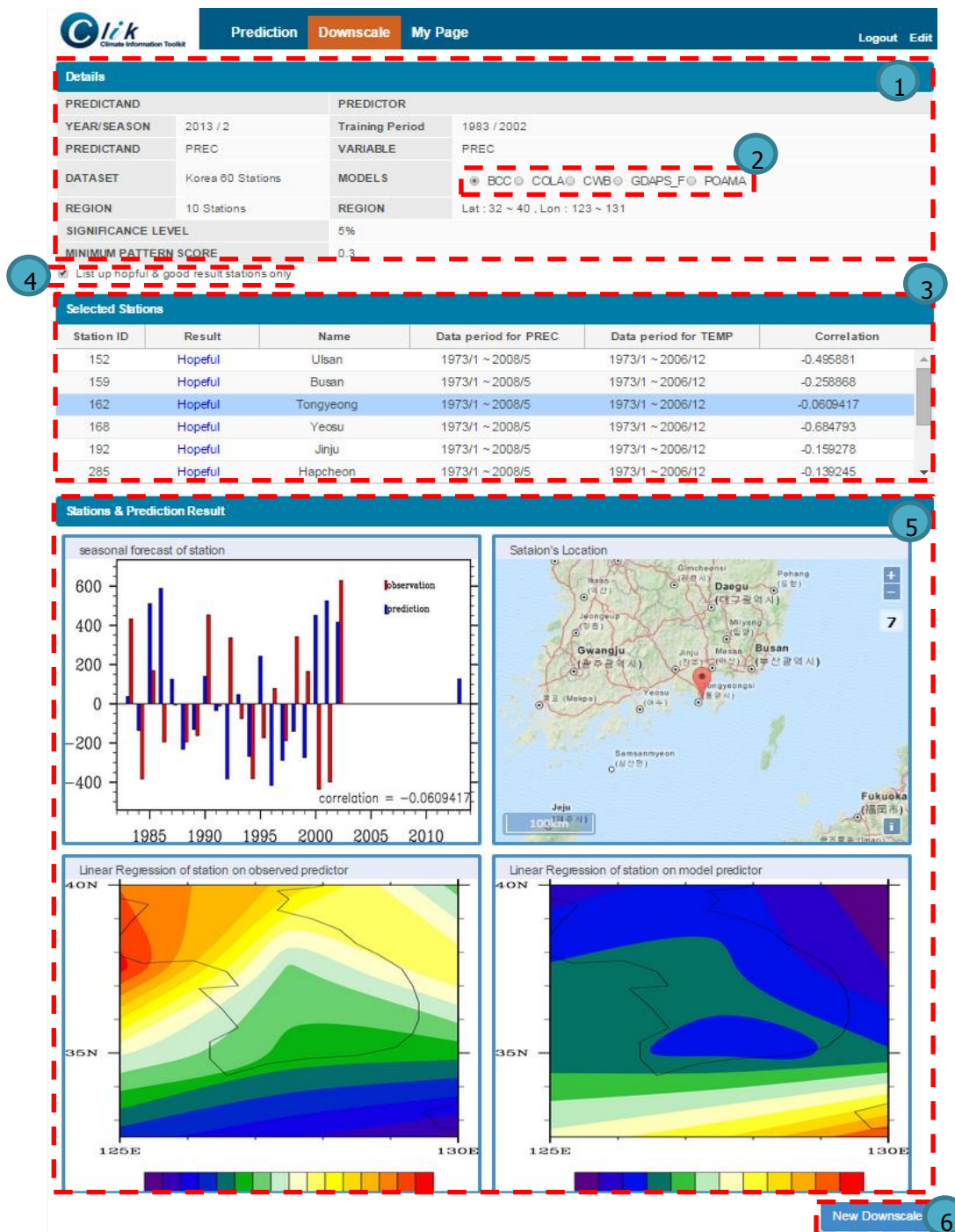
- Prediction Season:** Year (2014), Season (JFM).
- Variable:** Radio buttons for PREC, T850, Z500, SLP, U850, V850, U200, V200, and SST. Z500 is selected.
- Models:** Checkboxes for APCC, COLA, CWB, GDAPS_F, HMC, MGO, MSC_CANCMB, MSC_CANCIM4, NCEP, PNU, and POAMA. COLA and HMC are checked.
- Predictand:** Radio buttons for Precipitation and Temperature. Temperature is selected.
- Training Period:** From (1982) to (2002).
- Method:** Radio button for Linear Regression.
- Advanced Options:** Significance Level (5%) and Minimum Pattern Score (0.3%).

The **Downscaling Region** panel on the right features a map of East Asia with a blue rectangular region of interest over the Korean Peninsula. The region's coordinates are Latitude: 27.922 ~ 40.718 and Longitude: 120.967 ~ 135.909. A text box on the map provides the following details: Lat: 27.921546 to 40.718055, Lon: 120.967219 to 135.908625, Area: 1112120.75 sq.mil. A "Run with new selections" button is located at the bottom right.

[Figure 24] Downscale - Edit

4.4 Viewing Downscale Results

In this screen, the user can verify their downscale result.



[Figure 25] View Result

1. Presents detailed information about the selected downscale job.
2. When selecting a model, the grid of selected stations shows the processing results of

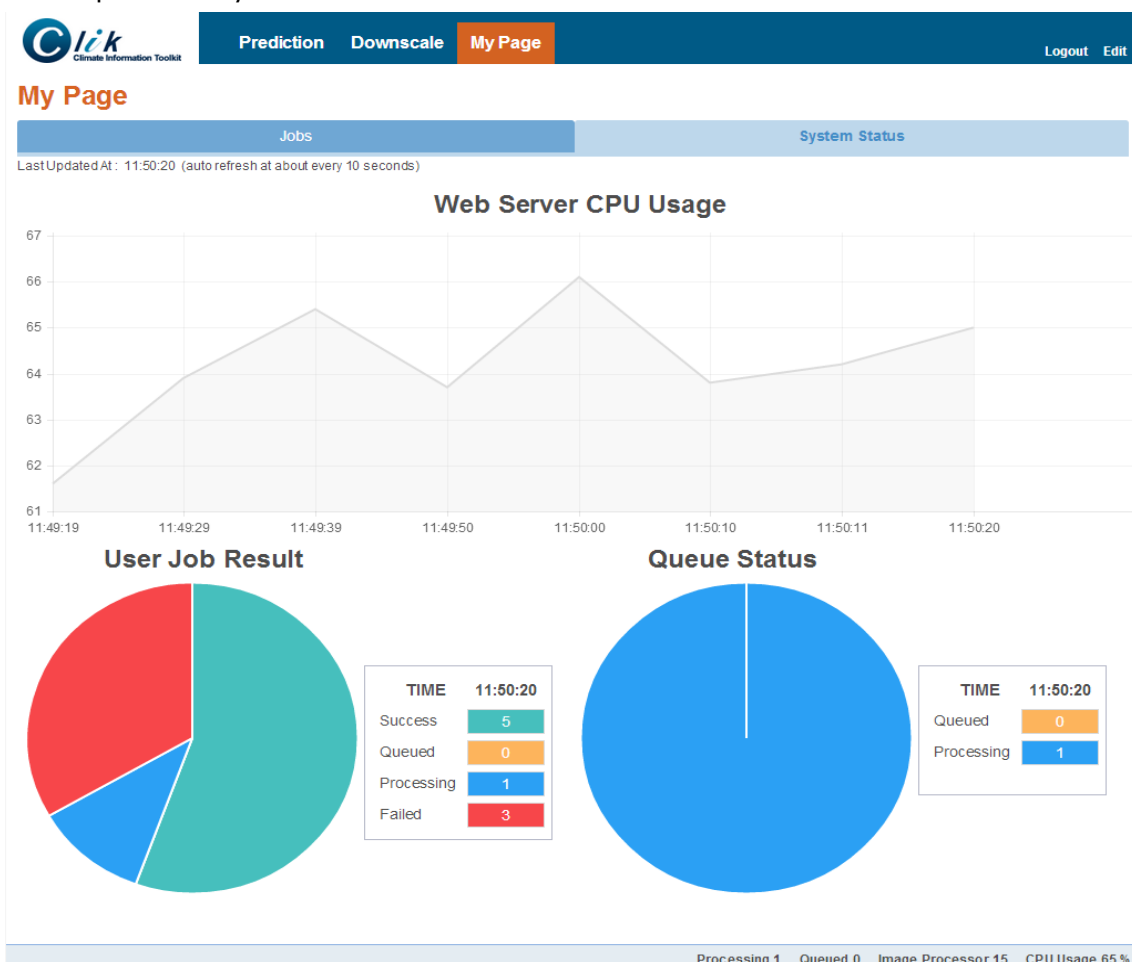
the model.

3. The selected station and prediction results will be shown in the panel.
4. Choose to set the display of the station or not based on the results of screening process which are categorized as bad, hopeful, or good.
5. Display the downscale results including contour maps and the location of the station.
6. Make new downscale job.

4.5 System Status

CPU Usage shows the status of the CPU using a line chart. After a user connects it constantly accumulates and displays the status for the prior 10 minutes.

User Job Result presents the pie graphs of "User Job Result" and "Queue Status" that depict the processing status of user's job and CLIK queue status, respectively. The chart updates every 10 seconds.



[Figure 26] System Status